

ED 157 573

JC 780 417

AUTHOR Clowes, Darrel A.
TITLE Budget Exercise.
INSTITUTION Virginia Polytechnic Inst. and State Univ.,
Blacksburg.
NOTE 17p.

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.
DESCRIPTORS *Budgeting; College Administration; Community
Colleges; Decision Making; *Educational Finance;
*Junior Colleges; Management Education; *Management
Games; Models; Money Management; *Problem Solving;
Simulation

ABSTRACT

Following a discussion of the factors to be considered in constructing feasible college budgets, an exercise in budget development is presented involving a hypothetical community college with 2,500 full-time equivalent (FTE) students, 500 in developmental education, 750 each in transfer and technical programs, and 500 undecided. Exercise participants are to follow a specific funding formula that covers cost per FTE, faculty to student ratios, mean faculty productivity, and number of student credit hours equalling one FTE for each study type. For each administrative office to be funded, participants are asked to consider officer's salary, costs for secretary, fringe benefits, student wages, travel, supplies and expenses, and equipment. For each academic area to be financed, participants must indicate chairperson's salary, number of full-time faculty and average salary for each, number of secretaries and clerical staff, fringe benefits, part-time faculty earnings per each section taught, student wages, travel, supplies, equipment, and total instructional costs per area. Participants are reminded to not overlook expenses for computer rentals; unusual activities such as art/drama, allied health and graduation; and special considerations such as ratio of part- to full-time instructors, number of planned sections, and productivity by area. (TR)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED157573

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Darrel A. Clowes

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) AND
USERS OF THE ERIC SYSTEM

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE,
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

BUDGET EXERCISE

Darrel A. Clowes
Community College Program Area
Virginia Polytechnic Institute and State University

EDAE 5400 The Community College

JC 780 417

Budgeting begins with an understanding of the purposes and the priorities of the institution since the operating budget is the vehicle for channeling resources within the institution to maximize the likelihood of achieving the purposes and/or priorities. Many items in a budget are fixed, so flexibility is often limited; sometimes limited to as little as 2-3% of the budget. Some standard allocations within operating budgets are:

Administration and office expense	10-20%
Instruction	58-70%
Learning Resources Center	4-9%
Plant Operation and Maintenance	10-15%
Community Services	0%

(Faculty salaries should not exceed 65% of the total budget; all salaries should not exceed 80% of the total.)

Administrative and office expenses include salary and all other expenses for the Board of Trustees, president, business office, personnel office, registrar, admissions, instructional deans, student services deans, assistant deans, community service and community relations officers, financial aid officer(s), institutional research, data systems, affirmative action, consultants and legal counsel. Related secretarial staff and expenses fall in this category. A miscellaneous account covers auditors fees, printing, telephone, mail, professional memberships, insurance, travel, entertainment, and consultants.

Instruction usually includes faculty salaries, teaching supplies, travel, materials, para-professionals, and clerical staff assigned to faculty. Counselors are faculty; professional development must be included here.

The Learning Resources Center includes the director, graphic artists, media technicians, assistants, clerical help, supplies and expenses including books, magazines, records, tapes, films, projectors, etc.

Community service administrative and secretarial costs are included in Administrative expenses. The balance of the items (salaries, rent, etc.) must be self-supporting.

Plant operation and maintenance includes administration, custodial services, security, property insurance, utilities, inventory control, supplies and expenses.

Constructing a Budget

Budgeting exemplifies the creative tension between the amount of income per F.T.E. student you have and the cost of producing the fifteen student credit hours that represent an F.T.E. student. The primary variables are income per F.T.E. and then several productivity measures: the average faculty load in student credit hours per semester, the average faculty salary, the percent of salary added for fringe benefits, and the proportion of support staff to faculty. There is usually little flexibility in the non-instructional areas outside of salary items where positions may be eliminated or functions combined.

Personnel Costs - Faculty:

A reasonable starting point is the average faculty salary (9 mos.). To that salary, you add a percentage for fringe benefits (20% is a reasonable national norm) to produce an average faculty salary cost. Institution-wide, the instructional supplies and related clerical personnel should total about 10% of the total faculty salary cost. Para-professional employees are used in lieu of additional faculty on the basis of 1.4 para-professionals for each 1 professional not employed. Thus, an average faculty salary of \$11,000, plus 20% for fringe benefits, would produce an average faculty salary cost of \$13,200. The clerical and instructional supplies factor would thus be 10% or \$1,320 per faculty institution wide. Para-professionals would be employed at an average nine month salary at 67% of the average faculty salary or \$7,370, plus \$1,470 for fringes or a total salary cost of \$8,840. Note: it is imperative to work only with average salary costs for classes of college personnel.

Personnel Costs - All Other:

Teaching faculty are the only revenue generating members of a college since they alone produce the student credit hours that are translated into full-time equivalent students and used as the base line for virtually all funding patterns. Therefore, other personnel costs within the institution ought to be generally related to average faculty salary. Some examples are:

<u>Classification</u>	<u>Ratio to Faculty Salary</u>	<u>Plus 12 Mo. Adjust.</u>
Clerical	.5	x
Maintenance	.5	x
Para-professional	.67	
Managers of Classified Personnel	.75	x

<u>Classification</u>	<u>Ratio to Faculty Salary</u>	<u>Plus 12 Mo. Adjust.</u>
Professional Non-Teaching	1.0	x
Directors	1.4	x
Deans	1.8	x
Presidents	2.5	x

Mean Faculty Productivity:

A basic productivity measure for an institution is mean faculty productivity. All non-teaching personnel are involved in activities to support and to maintain the organization so that teaching/learning may occur. The quantifiable outcome of that effort is the number of student credit hours produced for the institution by each faculty member. Thus, a three credit hour class with twenty enrolled students produces 3 credit hours x 20 students or 60 student credit hours. With an average teaching load of five sections, this would produce 60 student credit hours per class and a mean faculty productivity of 60 x 5 or 300 student credit hours.

Income Considerations:

Mean faculty productivity is a useful internal index of productivity which can be converted to the F.T.E. measure for funding by dividing by 15 since one F.T.E. is fifteen student credit hours. A mean faculty productivity of 300 S.C.H. thus converts to 20 F.T.E. students. If the institution is funded at \$1,000 per F.T.E. student, the faculty member has generated \$20,000. If the average faculty salary is \$11,000, then this falls safely within the 65% guideline since $.55 \times \$20,000 = \$11,000$. Total average instructional costs would be \$11,000 plus 20% for fringes plus 10% for support and supplies or \$14,300 per faculty member or slightly beyond the 70% guideline for instruction.

Internal Considerations:

Thus, with an average income of \$1,000 per F.T.E., an average faculty salary of \$11,000 and a 300 mean faculty productivity, the institution is at the limits of its resources. There are four factors which can be manipulated to affect this "creative tension": (1) the income per F.T.E. by legislative action or increase in local taxes or tuition, if possible; (2) the average faculty salary (and therefore all salaries) may be reduced or maintained without increase in the following funding period; (3) the mean faculty productivity may be increased by attracting more students, increasing class size, eliminating small classes, or eliminating faculty; and (4) non-teaching personnel may be released and their functions absorbed by others or abandoned.

Some Practical Considerations:

In actuality, most states provide for differentiated funding to allow for the differing costs of programs. For example, Florida funds at x dollars per F.T.E. applied on the basis of $.7x$ to $2.0x$, depending on the curriculum. (Technical courses are funded at the higher levels.) In Florida, M.F.P. in large institutions is planned at 220 S.C.H. in many technical programs (lower in nursing) to 480 S.C.H. for the academic transfer areas with a planned institutional M.F.P. close to 400. In Virginia, technical programs are funded at a 1:15 faculty-student ratio or an M.F.P. of 225; developmental programs are funded at about 270 M.F.P. and academic programs at 1:20 or 300 M.F.P.

Income, therefore, will vary depending upon the mix of academic, technical and other programs offered. The basic budgeting guidelines still apply, however.

Mission:

You are to develop a Budget for a 'community' college with 2,500 F.T.E. students. There are 500 F.T.E. students in developmental education, 750 F.T.E. students in transfer programs, 750 F.T.E. students in technical programs, and 500 F.T.E. students undecided. The funding formula provides:

	<u>Transfer</u>	<u>Technical</u>	<u>Developmental</u>
\$ per F.T.E.	\$ 800	\$ 1,300	\$ 1,100
Planned F/S Ratio	1:20	1:15	1:18
Planned M:F.P.	300	225	270
# S.C.H. = 1-F.T.E.	15	15	15

Undecided students are funded as transfer students; therefore, your total operating budget for the year is:

1,250 F.T.E. Transfer @ \$800	\$1,000,000
750 F.T.E. Technical @ \$1,300	975,000
500 F.T.E. Developmental @ \$1,100	<u>550,000</u>
	\$2,525,000

For each office you fund, indicate:

<u>Office</u>	<u>Item</u>	<u>Amount</u>
Officer's Salary		
Secretary		
Fringe Benefits		
Student Wages		
Total Salaries		<u> </u>
Travel		
Supplies and Expenses		
Equipment		
Total		<u> </u>
TOTAL FOR OFFICE		<u> </u>

For each academic area you fund, indicate:

Area

Chairperson @ average salary

Full-time faculty @ average salary

Secretaries and Clerical

Fringe Benefits

Part-time faculty @ \$___/section

Student Wages

Total Salaries

Travel

Supplies and Expense

Equipment

Total Expenses

Total Instructional Cost for Area

Try not to overlook these possible areas:

Computer Rental

Unusual expenses in:

Art/Drama

Allied Health

Technical Programs

College Nurse

Evening Director

Security

Graduation

Rentals of Off-Campus Facilities

Special Events

Special Considerations:

Proportion of part-time to full-time instructors

Number of planned sections and productivity by area

PLANNING SHEET - TEACHING FACULTY

<u>Content Area</u>	<u>% Total S.C.H.</u>	<u># S.C.H.</u>	<u>Approved Faculty Productivity</u>	<u># Faculty Authorized</u>
-------------------------	-------------------------------	---------------------	--	-------------------------------------

<u>Area</u>	<u>#</u> <u>S.C.H.</u>	<u>#</u> <u>F.T.E.</u> <u>Students</u>	<u>#</u> <u>F.T.E.</u> <u>Faculty</u>	<u>Total</u> <u>Instructional</u> <u>Cost</u>	<u>(4 ÷ 2)</u> <u>Instructional</u> <u>Cost Per</u> <u>F.T.E.</u> <u>Student</u>	<u>(1 ÷ 3)</u> <u>M.F.P.</u>
-------------	---------------------------	--	---	---	--	---------------------------------

PLANNING SHEET - TEACHING FACULTY

<u>Content Area</u>	<u>% Total S.C.H.</u>	<u># S.C.H.</u>	<u>Approved Faculty Productivity</u>	<u># Faculty Authorized</u>	<u># Sections Planned</u>	<u># Sections F. T. Faculty</u>	<u># Sections P. T. Faculty</u>
---------------------	-----------------------	-----------------	--------------------------------------	-----------------------------	---------------------------	---------------------------------	---------------------------------

SUMMARY SHEET

1. Mean Faculty Productivity

Hum. _____
Soc. Sc. _____

Nat. Sci. _____
P. E. _____

Technical _____
Developmental _____

Overall _____

2. Faculty

Total # F. T. Faculty _____
Sections Taught by F. T. Faculty _____
Sections Taught by P. T. Faculty _____
% Sections Taught by P. T. Faculty _____

Counselors _____
Librarians _____
Para-professionals _____
Non-professionals _____

Average Faculty (F. T.) Salary _____

3. Budgeted Amounts by Area

	\$	% Total Budget
Faculty Salaries (inc. fringes)	_____	_____
Total Salaries	_____	_____
Instructional Costs	_____	_____
Learning Resources Center	_____	_____
Maintenance	_____	_____
Administration and Support	_____	_____
TOTAL	_____	_____

PLANNING SHEET: MEAN FACULTY PRODUCTIVITY

	1.	2.	3.	4.	5.	6.
Area	# S.C.H.	# F.T.E. Students	# F.T.E. Faculty	M.F.P. (1+3)	Total Instructional Cost	Instructional Cost Per F.T.E. Student (5+2)
Humanities						
Social Science						
Natural Science						
P. E.						
Technical/ Occupational						
Developmental						
TOTALS						

UNIVERSITY OF CALIF.
LOS ANGELES

SEP 1 1978

CLEARINGHOUSE FOR
JUNIOR COLLEGES